



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,536	07/27/2001	Kevin Y. Chou	SP01-209	8547

22928 7590 10/20/2004  
CORNING INCORPORATED  
SP-TI-3-1  
CORNING, NY 14831

EXAMINER

SERGEANT, RABON A

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/916,536

Applicant(s)

CHOU ET AL.

Examiner

Rabon Sergent

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-10,12-23,25-44 and 46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10,12-23,25-44 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/03, 3/04, 6/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1711

1. Claims 1, 2, 7-10, 12-23, and 28-44 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compositions comprising oligomers derived from the reaction of polypropylene glycol, hydroxyethyl acrylate, and either 4,4'-methylene bis(cyclohexylisocyanate) or isophorone diisocyanate, does not reasonably provide enablement for compositions wherein the oligomer is derived from virtually any polypropylene glycol soft block. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Despite applicants' response, the position is maintained that applicants have not provided any guidance for the selection and use of components, other than the aforementioned ones, that will yield a coating composition having the claimed properties. Furthermore, the position is maintained that one of ordinary skill could not practice the claimed invention using components, other than those disclosed by the applicants, without having to resort to undue experimentation. Applicants have provided no evidence to support their argument that only routine experimentation would be required to substitute other capping agents and diisocyanates. In response to their argument, the examiner further notes that the rejected claims neither require that the oligomer be a urethane or that diisocyanates be used at all. Therefore, it is not seen that applicants' specification provides adequate enablement for the production of such unrelated oligomers as polyesters, polycarbonates, or polysiloxanes that will have the claimed properties.
2. Claims 1, 2, 4-10, 12-23, 25-44, and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have failed to specify the type of percent value (i.e.; weight or mole) or the basis of the claimed percent values for the oligomer and monomer components. Furthermore, with respect to claims 20, 21, 32, and 46, it is unclear how the additionally claimed components relate to the claimed percent value amounts for the oligomer and monomer. If the respective percent value ranges of 20-80% and 80-20% are based on the coating composition, then it would seem that additional components are excluded from the composition.

3. Claims 12 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants' species, substituted alkoxy alkyl alkenes, fails to further limit the subject matter of the independent claims, because the species is not an acrylate, as required by the independent claims.

4. Claim 46 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have failed to provide support for the additionally claimed at least one ethylenically unsaturated reactive monomer. Furthermore, it is unclear how to interpret this component, because it is not distinguishable from the acrylate monomer component.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

Art Unit: 1711

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 2, 4-10, 12-23, 25-44, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/08975.

WO 99/08975 discloses a coated optical fiber, wherein the fiber is coated with a radiation curable composition, having tensile strength and modulus characteristics corresponding to those claimed, comprising the reaction product of an unsaturated oligomer, produced by reacting a polyol, a polyisocyanate, and a hydroxyl functional ethylenically unsaturated compound; and an unsaturated monomer. The reference further discloses that the oligomer has a preferred

molecular weight of 5,000 to 20,000, and that the oligomer and monomer may be derived from propylene oxide reactant. See page 6, line 17; page 15, line 26; and page 17, lines 25 and 26.

7. In view of the teachings within the reference pertaining to the use of reactants that correspond to the reactants utilized by applicants and in view of the fact that the reference discloses that the oligomer should have a preferred molecular weight of at least 5,000 and that the cured coatings have physical properties that are beneficial for the protection of optical fibers, the position is taken that it would have been obvious to one of ordinary skill in the art to follow these teachings, so as to arrive at the instant invention.

8. Applicants have argued that there is no motivation to combine the specific disclosed oligomer with the specific disclosed monomer, so as to arrive at the instant invention. This argument is insufficient to overcome the prior art rejection. The motivation stems from the reference itself; the reference teaches components that will yield applicants' claimed oligomer and monomer and further teaches how they may be utilized to produce optical fiber coatings having applicants' claimed properties. Accordingly, it would have been *prima facie* obvious to select the instantly claimed components from among the listings of the prior art.

9. Claims 1, 2, 9, 10, 12-23, 28, 30-40, 43, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Komiya et al. ('553).

Patentees disclose optical fiber coating compositions considered to possess applicants' claimed physical properties, wherein the coating may be a primary or secondary coating, derived from 20-80 wt% of a polypropylene glycol containing urethane acrylate and 3-50 wt% of an acrylate monomer, such as nonylphenol propylene oxide modified acrylate. See abstract; column 2, lines 49+; column 3; column 6, lines 6-15; column 8, lines 21-27; and column 10, lines 60+.

Art Unit: 1711

Applicants' claimed physical properties are considered to be met in view of the disclosure at column 10 and the fact that the composition of the reference utilizes reactants that are equivalent to those claimed.

10. Claims 4-6, 8, 25-27, 29, 41, 42, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komiya et al. ('553).

As aforementioned, patentees disclose optical fiber coating compositions considered to possess applicants' claimed physical properties, wherein the coating may be a primary or secondary coating, derived from 20-80 wt% of a polypropylene glycol containing urethane acrylate and 3-50 wt% of an acrylate monomer.

11. The reference fails to disclose the claimed structure of the oligomer, as set forth within claims 4-6, 25-27, and 46; however, since the reactants necessary to produce these structures are disclosed by the reference and since the reference clearly produces oligomers from these reactants, the position is taken that it would have been obvious to one of ordinary skill to react these reactants in a manner that would yield the claimed structures. Applicants have not established that specific structures are critical. With respect to claims 8 and 29, though the reference fails to recite tripropylene glycol methylether monoacrylate, the reference does disclose monoacrylates derived from propylene oxide and propylene glycol; therefore, the position is taken that it would have been obvious to utilize the claimed compound, since one of ordinary skill would have expected it have analogous properties to the disclosed compounds. With respect to claims 41 and 42, though the reference is silent regarding the claimed specifics regarding the application and curing of the primary and secondary coatings, the position is taken

Art Unit: 1711

that the claimed process steps amount to obvious to processing selections and modifications that would have been obvious to one of ordinary skill in the art.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

  
RABON SERGENT  
PRIMARY EXAMINER

R. Sergent

October 17, 2004